

REMARKS

This paper responds to the Advisory Action dated June 13, 2006. Accordingly, Applicant requests entry of the previously filed Amendment and Response prior to entry of the present paper.

Claims 1, 9, 40 and 46 are amended, no claims are canceled, and no claims are added; as a result, claims 1-6 and 8-50 are now pending in this application. The Examiner states in the Advisory Action that the “applicants arguments are not commensurate in scope with the claims language” and that the “prior art has “substantially vertical” structures – the figures show upward pointing structures”. Applicant has amended claims 1, 9, 40 and 46 to remove the suggested non-commensurate language from the claims and requests that the claims be reconsidered for the reasons given below with respect to each of the prior rejections.

§102 Rejection of the Claims

Claims 46-50 were rejected under 35 U.S.C. § 102(e) for anticipation by Kang et al. (U.S. Publication 2004/0175884). Applicant respectfully traverses this rejection.

Kang discloses capacitors with a larger diameter at the bottom than at the middle of the capacitor. Thus, the walls of Kang’s capacitor are not vertical as recited in the present claims, especially since the reference shows in all figures that the side walls 280 of the capacitor are outwardly sloping. Applicant submits that the present embodiments would indicate to one of ordinary skill in the art that the etched wall of the recess 144 is made more vertical by the straightening etch shown in figure 1C (see pages 7 and 8). Applicant respectfully submits that Kang has no suggestion about vertical capacitor walls. In view of the above discussion, Applicant once again respectfully submits that the cited reference does not disclose a feature of “*... the conductive structure has vertical sidewalls ...*”, as recited in independent claim 46, as amended herein. The present application discusses the near vertical or substantially vertical sidewalls at least at page 1, line 25; page 2, lines 6-11, page 5, line 31; page 7, line 30; page 8, lines 2-7; page 26, line 15 and page 31, line 2.

The dependent claims 47-50 directly depend from claim 46, and are believed to be patentably distinct over the cited reference of Kang at least as depending upon a base claim

shown above to be patentable. In view of the above discussed claim amendment, Applicant requests that this rejection be reconsidered and withdrawn.

§103 Rejections of the Claims

Claim 50 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kang et al. (U.S. Publication 2004/0175884). Applicant respectfully traverses this rejection.

As noted above, Kang does not suggest vertical sidewalls, and since the cited reference shows the side walls of the capacitor with a non-vertical slope including horizontal portions (See figure 3H and paragraph 46), then the cited reference does not describe or suggest the feature of a “*... conductive structure has vertical sidewalls ...*”, as recited in independent claim 46, as amended herein, from which claim 50 directly depends. Applicant respectfully requests that this rejection be reconsidered and withdrawn.

Claims 40-45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kang et al. in view of Jost et al. (U.S. 5,966,611). Applicant respectfully traverses this rejection.

Jost is used in the outstanding Office Action to show that organic sacrificial layers are known. Applicant respectfully submits that Jost does nothing to cure the above noted failure of the Kang reference to suggest vertical sidewalls, and thus the suggested combination of references neither describe nor suggest “*...a conductive structure embedded therein having vertical sidewalls ...*”, as recited in claim 40, as amended herein.

The dependent claims are felt to be patentable at least as depending upon a base claim shown to be patentable over the suggested combination of references. Applicant respectfully requests that this rejection be reconsidered and withdrawn.

Claims 1-6 and 8-39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kang et al. in view of Jost et al. and O'Brien (U.S. 5,817,182). Applicant respectfully traverses this rejection.

Kang and Jost have been discussed above. O'Brien is used to show that it is known to rinse after etching.

Applicant respectfully submits that the suggested combination of references neither describe nor suggest at least the claimed features of “*...forming a conductive structure in the first recess having vertical sidewalls ...*”, as recited in claims 1 and 9, for reasons similar to those noted above with reference to the prior rejections.

Applicant submits that the combination of references neither describe nor suggest the claimed features of “*...wherein second etching includes a second etch rate that is slower than the first etch rate ...*”, as recited in claims 22 and 29, from which claims 23-28 and 30-39 depend. There is no suggestion in the cited references that the second etch should be slower than the first etch rate, and thus there exists no motivation to make the suggested changes.

The dependent claims are held to be in patentable condition at least as depending from base claims shown above to be patentable over the suggested combination of references. In view of the above noted claim amendments and discussion, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney David Suhl at (508) 865-8211 or the undersigned attorney at (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

KEVIN TOREK ET AL.

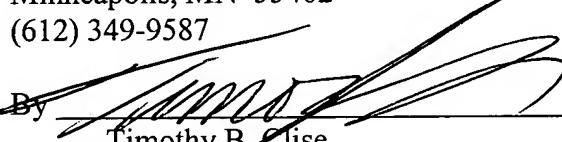
By their Representatives,

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Date

27 June '06

By


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27 day of June, 2006.

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KEVIN TOREK

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